

**VILLAGE OF WAUCONDA**

2005 -O - 53

***AN ORDINANCE AMENDING THE REGULATIONS PERTAINING TO GREASE TRAPS  
CONTAINED IN SECTION 10-8-3-2 OF THE WAUCONDA MUNICIPAL CODE***

**ADOPTED BY THE VILLAGE BOARD**

**OF THE**

**VILLAGE OF WAUCONDA, ILLINOIS**

**ON**

**July 5, 2005**

**Published in pamphlet form by authority of the Village Board  
of the Village of Wauconda, Lake County, Illinois,  
this 12th Day of JULY, 2005**

SALVATORE J. SACCOMANNO	Mayor	PAUL C. BIRD	Trustee
MARY C. TAYLOR	Clerk	PATRICK MURPHY	Trustee
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		JEAN MAYO	Trustee

**AN ORDINANCE AMENDING THE REGULATIONS PERTAINING TO GREASE TRAPS  
CONTAINED IN SECTION 10-8-3-2 OF THE WAUCONDA MUNICIPAL CODE**

**WHEREAS**, the Corporate Authorities of the Village of Wauconda desire to curb sanitary sewer overflows from fats, oil, and grease accumulations in sewer mains throughout the sewer system of the Village of Wauconda; and

**WHEREAS**, sanitary sewer blockages and obstructions are due primarily to contributions and accumulations of fats, oils and greases in the sewer system from industrial or commercial establishments, particularly food preparation and serving facilities; and

**WHEREAS**, the Corporate Authorities of the Village of Wauconda desire to enact comprehensive and effective regulation to control the introduction of excessive amounts of fats, oil and greases into the sewer system of the Village of Wauconda; and

**NOW, THEREFORE**, be it ordained by the President and the Board of Trustees of the Village of Wauconda as follows:

**SECTION I:** That Paragraph N of Section 10-8-1-3 of Chapter 8 of Title 10 of the Wauconda Municipal Code entitled "Industrial Wastewater Discharge Standards and Pretreatment Regulations" is hereby deleted in its entirety and replaced with a new Paragraph N to provide as follows:

"N. "Fats, Oil, or Grease, or FOG" shall be defined according to the definition provided in Paragraph (B) of Section 10-8-3-2 of this Chapter."

**SECTION II:** That Section 10-8-3-2 of Chapter 8 of Title 10 of the Wauconda Municipal Code entitled "Industrial Wastewater Discharge Standards and Pretreatment Regulations" is hereby deleted in its entirety and replaced with a new Section 10-8-3-2 to provide as follows:

"10-8-3-2: Additional Pretreatment Measures, Grease and Sand traps.

- (A) Whenever deemed necessary, the Village Administrator may require industrial users to restrict their discharge during the peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewer wastestreams from industrial wastestreams, and such other conditions as may be necessary to protect the POTW and determine the industrial user's compliance with the requirements of this Chapter.
- (B) Definitions. In addition to the terms defined in Section 10-8-1-3 of the Code, the following terms used in this Section shall be defined as follows:
  - 1. "Adequately sized Grease Interceptor" shall mean an interceptor that does not allow a discharge of FOG in quantities sufficient to cause POTW line stoppages or necessitate increased maintenance on the POTW in order to keep line stoppages from occurring.
  - 2. "Existing facility" shall mean any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which started before the adoption of this Ordinance.
  - 3. "Exterior Grease Trap/Great Interceptor" shall mean a device utilized to effect the separation of FOG in wastewater effluent from a Food Service Establishment to prevent its entry into the POTW, with a 1,000 gallon capacity or more, placed underground, outside a building or structure.
  - 4. "Fats" shall mean substances that are primarily fatty acid esters of the alcohol glycerol, also called acylglycerols, neutral fats, natural fats, or glycerides. They are the major components of depot, or storage, fats in plant and animal cells, especially in the adipose (or fat) cells of vertebrates. This term may include any synthesized

substance of a like nature.

5. "FOG" shall mean Fats, Oils, or Greases.
  6. "Food Service Establishment" shall mean any commercial facility discharging kitchen or food preparation wastewater including, but not limited to the following: restaurants, motels, hotels, cafeterias, hospitals, schools, nightclubs, delicatessen, meat cutting-preparation, bakeries, bagel shops, grocery stores, gas stations, and any other facility that the Environmental Quality Office determines to need a Grease Interceptor by virtue of its operation.
  7. "Grease" shall mean fats, cellulose, starch, proteins, waxes, free fatty acids, calcium and magnesium soaps, mineral oils and certain other non-fatty material from animal or vegetable sources, or from hydrocarbons of petroleum origins, lipids, or grease, whether emulsified or not, commonly found in wastewater from food preparation and food service. Grease may originate from, but not be limited to, discharges from scullery sinks, pot and pan sinks, dishwashing machines, soup kettles and floor drains located in areas where grease-containing materials may exist. These are substances that may solidify or become viscous at temperatures between thirty-two (32) degrees Fahrenheit and one hundred fifty degrees (150) Fahrenheit.
  8. "Grease Interceptor/Grease Trap" shall mean a device utilized to effect the separation of grease and oils in wastewater effluent from a Food Service Establishment. Such traps or interceptors may be of the "Exterior" or outdoor underground type of a 1,000-gallon capacity or more, or the "Point of Use" package units, which are typically less than 100-gallon capacity. For the purpose of this definition, the words "trap" and "interceptor" are used interchangeably.
  9. "Oil" shall mean any material, but particularly biological lipids and mineral hydrocarbons, recovered as a substance soluble in an organic extracting solvent using an appropriate analytical method approved under 40 CFR 136. It also includes other material extracted by the solvent from an acidified sample and not volatilized during the extraction procedure.
  10. "Owner" shall mean an individual, person, firm, company, association, society, corporation, or group upon whose property the building or structure containing the Food Service Establishment is located or will be constructed. "Owner" shall also include the owner of a Food Service Establishment who may lease the building, structure, or a portion thereof, containing the Food Service Establishment.
  11. "Physical Property Restriction" shall mean a physical condition of a parcel of real estate which causes the potential installation an Exterior Grease Trap to be cost prohibitive. Physical Property Restriction shall not include restrictions arising from a new building owner's decision not to provide a stub-out for grease installation before a Food Service Establishment occupies the premises.
  12. "Point-of-Use Grease Interceptor/Grease Trap" shall mean a device placed under or in close proximity to sinks or other fixtures, which is typically less than 100-gallon capacity, likely to discharge grease in an attempt to separate, intercept or hold grease waste to prevent its entry into the POTW.
  13. "POTW or Publicly Owned Treatment Works" shall have the same meaning as contained in paragraph II of Section 10-8-1-3 of the Wauconda Municipal Code.
- (C) Any Sand interceptors shall be provided for any industrial user when, in the opinion of the Industrial Monitor, they are necessary for the proper handling of wastewater containing excessive amounts of sand. All such sand interceptors shall comply with this ordinance, the Illinois Plumbing Code, and any other state laws or regulations, except that in case of a conflict between the Illinois Plumbing Code, or any state law or

regulation, and this ordinance, the more stringent regulation shall apply. No such interceptors shall be required for residential users. All Sand interceptors shall be of the type and capacity approved by the Industrial Monitor.

- (D) Grease Interceptors shall be provided for any industrial user who generates fats, oil or grease (FOG). All required Grease Interceptors shall comply with the following:

1. General Requirements.

- a. No Grease Interceptor shall be installed, modified, or altered without the Owner first obtaining a permit from the Environmental Water Quality Office. All grease interceptor plans and specifications shall be submitted and approved by the Village Administrator prior to installation.
- b. The Village Administrator must approve all Grease Interceptor designs prior to installation.
- c. All Grease Interceptors shall be constructed of durable, corrosion-resistant materials and shall have water-tight covers securely fastened in place.
- d. All Grease Interceptors shall be installed in an accessible location to permit the convenient removal of the lid and internal contents.
- e. All Grease Interceptor units shall be of the type and capacity approved by the Industrial Monitor.
- f. No grease interceptor shall receive the discharge from a food waste disposal or a commercial dishwashing machine.
- g. All Grease Interceptors shall comply with this ordinance, the Illinois Plumbing Code, and any other state laws or regulations, except that in case of a conflict between the Illinois Plumbing Code, or any federal or state law or regulation, and this ordinance, the more stringent regulation shall apply.
- h. All Grease Interceptors shall be installed by a plumber licensed by the State of Illinois.
- i. All Grease Interceptors shall be maintained as specified in this Section.
- j. Water cooled Grease Interceptors are prohibited.
- k. No Grease Interceptors shall be required for residential users.

2. Existing Food Service Establishments.

- a. All existing Food Service Establishments shall be equipped with Grease Interceptors, which shall be in continuous, satisfactory and effective operation. Food Service Establishments without a Grease Interceptor shall be given a compliance deadline not to exceed six (6) months from date of notification to have an approved Grease Interceptor installed.
- b. Existing Food Service Establishments shall be permitted to operate a Grease Trap in existence prior to the date of this ordinance, provided that the existing Grease Trap is properly designed and adequately prevents grease from entering the POTW such that it does not cause POTW line stoppages or necessitate increased maintenance on the POTW in order to keep line stoppages from occurring. In the event an existing Food Service Establishment's Grease Interceptors are either under-designed, substandard, or do not adequately prevent grease from entering the POTW, the owner(s) will be notified in writing of the deficiencies and required improvements, and given a compliance deadline not to exceed six (6) months to install a

new Grease Trap in conformity with the requirements of this Section. The newly installed Grease Trap shall be an Exterior Grease Interceptor, unless a physical property restriction exists on the premises, or a qualified engineer provides evidence to the satisfaction of the Village Administrator that a Point-of-Use Grease Trap would adequately prevent the introduction of FOG into the POTW. In such cases, a Point-of-Use grease trap may be installed as an alternative to an Exterior Grease Trap. The Point-of-Use Grease Trap shall comply with sizing criteria and design specifications provided in this Section.

- c. Any additional fixtures that are added to the food service establishment and discharges a grease-laden wastestream shall be plumbed into the Grease Interceptor, except that, if such Grease Interceptor does not have the capacity to adequately prevent grease from entering the POTW, a new interceptor shall be required. Any alterations to the Grease Interceptor, or addition of additional Grease Interceptors, shall require a permit from the Environmental Quality Office before installation.
  - d. All Existing Food Service Establishments shall comply with the maintenance regulations and requirements contained in this Section for Grease Traps.
3. New or Remodeled Food Service Establishments in Existing Facilities.
- a. New Food Service Establishments locating in existing buildings, or Food Service Establishments remodeling the buildings in which they are located, are required to install Exterior Grease Interceptors, which shall comply with the standards and regulations contained in this Section, except in cases provided herein.
  - b. For cases in which Exterior Grease Interceptors are infeasible to install due to physical property restrictions, a Point-of-Use grease trap may be installed as an alternative to an Exterior Grease Trap. The Point-of-Use Grease Trap shall comply with sizing criteria and design specifications provided in this Section.
  - c. All New or Remodeled Food Service Establishments in Existing Facilities shall comply with the maintenance regulations and requirements contained in this Section for Grease Traps.
4. Food Service Establishments in New Facilities.
- a. Food Service Establishments, locating in newly constructed facilities, shall install an Exterior Grease Interceptor adequately sized and approved by the Village.
  - b. All new grease interceptors shall be designed and constructed in accordance to Section 2 and 3.
  - c. Following installation of a grease interceptor, all Food Service Establishments shall comply with maintenance requirements as set forth in Section 5.
5. New Buildings (Strip Centers) with the Potential for Food Service Establishments.

All new buildings or strip centers containing sections designated for commercial enterprise are encouraged to provide a stub-out for a separate waste line for future grease interceptor installation. The owner of a new strip center shall consider suitable physical property space and sewer gradient that

will be conducive for the installation of any Exterior Grease Interceptor that may be necessary in the future for any flex space contained within the strip center. Physical Property Restriction shall not be a defense for failure to install an Exterior Grease Interceptor, where no stub-out is provided in a new construction after the effective date of this ordinance.

6. Design and Structural Criteria for Exterior Grease Interceptors. In addition to the requirements contained elsewhere in this Section, Exterior Grease Interceptors shall conform to the following criteria when being designed and constructed:
  - a. A 24-minute retention time under actual peak flow.
  - b. No less than 1,000 gallons total capacity, unless a qualified engineer provides evidence to the satisfaction of the Village Administrator that a lower capacity Grease Trap would adequately prevent the introduction of FOG into the POTW. If the estimated flow of FOG-laden wastewater from the Food Service Establishment exceeds the 1,000 gallon minimum capacity, the Owner shall be required to install an Exterior Grease Interceptor of sufficient capacity to service the Establishment.
  - c. Interior baffles to distribute flows. Will extend six (6) inches above water line but cannot flood the inlet pipe.
  - d. Minimum 2:1 length to width ratio.
  - e. Low velocity flow near outlet.
  - f. Baffle wall be located a distance from inlet wall of 2/3 to 3/4 of the total length of the interceptor.
  - g. Nine (9) inches of freeboard at grease interceptor top.
  - h. Each grease interceptor shall have inlet and outlet tees. The outlet tee shall extend 50% into the liquid depth. The inlet tee shall extend 25% into the liquid depth. Inlet and outlet tee must be plugged at the top of the sanitary tee and be a minimum of three (3) inches in diameter.
  - i. Access openings over the inlet, outlet, and each compartment within the grease interceptor. Each opening shall be twenty-four (24) inches in diameter and contain pick holes. All covers shall be constructed of cast iron or equivalent traffic bearing material. Manholes/covers must extend to the finished grade and shall be installed to exclude the entrance of surface or storm water into the interceptor.
  - j. Full size cleanouts shall be installed on the inlet and outlet sides of the interceptor and extended to grade. All such cleanouts must be accessible for inspection and cleaning.
  - k. Exterior Grease Interceptors must be vented in accordance with the Illinois State Plumbing Code with a minimum 2" diameter vent piping. Vent connections may be made through the top of the interceptor, in which case the bottom of the vent shall extend no closer than 6" to the static water level, or may be made through the side of the interceptor's access opening.
  - l. Exterior grease interceptors shall receive kitchen wastes. Kitchen wastes include: pot sinks, prep sinks, can wash, and floor drains.
  - m. Minimum concrete compressive strength of 3,500 psi.
  - n. Joints shall be properly sealed to prevent infiltration or exfiltration.

- o. Grease interceptors must meet a minimum structural design of 150-pounds/square foot for non-traffic installations. For installations involving vehicular traffic, the grease interceptor shall be designed to withstand a H-20 wheel load.
  - p. Grease interceptors shall meet the following standards: ASTM C-1227 for Septic Tanks, C-913 for Precast Concrete Water and Wastewater Structures, ACI-318 for Design and ASTM C-890 for establishing Minimum Structural Design Loading.
  - q. Grease interceptors made of polyethylene or fiberglass tanks shall be able to withstand the appropriate loading (traffic or non-traffic) or perform under a vacuum test to stimulate loading and include 12,000 psi ultimate tensile strength, 19,000 psi flexural strength, and 800,000 psi flexural modulus of elasticity as per ASTM D790. Tanks shall be listed and labeled.
7. Design Criteria for Point-of-Use Grease Interceptors. In addition to the requirements contained elsewhere in this Section, Point-of-Use Grease Interceptors shall have the following capacity to service FOG laden wastewater according the follow method of calculation:

	Formula	Example
Step 1	Determine the cubic contents of the fixture by multiplying length times width times depth of the fixture.	For a 3 compartment sink: three compartments times 24" long by 24" wide by 14" deep. Cubic contents: $3 \times 24 \times 24 \times 14$ $= 24,192$ cubic inches
Step 2	Determine the capacity in gallons. 1 gallon = 231 cubic inches.	Contents in gallons: $24,192 \div 231 = 104.7$ gallons
Step 3	Determine actual drainage load. The fixture is usually filled to about 75 percent of capacity with wastewater. The items to be washed displace about 25 percent of the fixture content. Actual drainage load = 75 percent of fixture capacity.	Actual Load: $.75 \times 104.73$ gallons = 78.55 gallons
Step 4	For design considerations, it is good practice to calculate the flow rate in GPM equal to or greater than 75 percent of the fixture capacity.	Calculated flow rate for design capacity in GPM on 75 percent of fixture capacity: 75 percent of fixture capacity = 78.55 gallons Flow Rate = 78.55 GPM
Step 5	Select the grease separation device that matches the calculated design flow rate Note: Select next larger size when flow rate falls between two sizes.	79 GPM

8. Maintenance of Grease Traps, Maintenance Records.

a. Maintenance of Grease Traps.

- i All Grease Interceptors shall be located as to be readily and easily accessible for cleaning and inspection.
- ii All Grease Interceptors shall be routinely maintained in proper operating order by the owner, and at the owner's expense, such that no Grease Interceptor shall discharge FOG into the POTW. All Grease Interceptors shall be serviced and emptied of accumulated waste content as required in order to maintain minimum design capability or effective volume on the interceptor, but in no case shall a FOG and/or solids accumulation in any Grease Interceptor be permitted to exceed more than twenty-five (25) percent of the total depth from grease interceptor's interior floor to the static or working water level in the Grease Interceptor, as measured from the outlet side. An Exterior Grease Interceptor and Point-of-Use Grease Interceptors shall be serviced and emptied of FOG and solids no less than every ninety (90) days, ~~and Point-of-Use Grease Interceptors shall be serviced and emptied of FOG and solids no less than once per week.~~
- iii Maintenance shall include the complete removal of all contents, including floatable materials, wastewater, sludge, and solids.
- iv Physical, chemical or biological agents shall not be introduced into catch basins, Grease Traps or other separator devices for the purposes of re-suspending, dissolving, emulsifying, or rendering soluble any pollutant or other materials removed from a waste stream by such pretreatment devices and reintroducing these materials into the sewer system. Separation, decanting or back flushing of the Grease Interceptor or its wastes is prohibited. The Owner shall be responsible for the proper removal and lawful disposal of the Grease Interceptor waste. All waste removed from each Grease Interceptor must be disposed of at a facility permitted by the State of Illinois to receive such waste. No Grease Interceptor waste shall be discharged directly to the wastewater collection system or wastewater treatment facilities.

- b. Maintenance Records. All Food Service Establishments shall maintain a written record on site of all maintenance performed upon a Grease Interceptor for three (3) years after the date of such maintenance. Such maintenance record shall be available for inspection at the request of the Village Administrator. For any Owner who causes or is responsible, entirely or in part, for a backup, obstruction, overflow or failure of the POTW due, in part or in whole, to an accumulation of FOG, shall be required to file a copy of such maintenance record with the Environmental Quality Office of the Village on a monthly basis for a period of one (1) year.

9. Violations, Remedies and Penalties.

- a. Any Food Service Establishment that is identified, in whole or in part, as the source of a backup, obstruction, overflow or failure of the POTW due, in part or in whole, to an accumulation of FOG, will be assessed the costs of inspection, sampling or remediation costs for clean up and repair of the POTW as a result of the backup, obstruction, overflow or failure, in addition to any fines and remedies provided in this Chapter or dispensed from the State of Illinois.
- b. Any Owner who fails to comply with the requirements contained in this Section shall be subject to revocation, suspension, or non renewal of Owner's liquor license issued pursuant to Chapter 5 of Title 3 of this Code, or food dealer's license issued pursuant to Chapter 3 of Title 7 of this Code.

- c. Any Owner who fails to comply with the requirements contained in this Section shall be subject to Administrative Enforcement Remedies contained in Section 10-8-10, and/or to Judicial Enforcement Remedies contained in Section 10-8-11 of this Chapter.
- d. None of the provisions in this Chapter shall be construed as exclusive remedies. The Village reserves the right to take any, all, or any combination of actions provided in this Chapter against a noncompliant user, Owner or violator."

**SECTION III:** That Section 3-5-19 of Chapter 5 of Title 3 of the Wauconda Municipal Code entitled "Revocation of License" is hereby amended to add the following language, with double underline (insert) denoting inserted language and strikeout (~~delete~~) denoting deleted as follows:

"3-5-19 **REVOCATION OF LICENSE:** The Village President may suspend, revoke, or refuse to renew any retail liquor dealer's license for any violation of any provision of this Chapter, for a violation of Section 10-8-3-2 of this Code pertaining to Grease Traps, or for any violation of any State law pertaining to the sale of alcoholic liquor."

**SECTION IV:** That Section 3-5-19 of Chapter 5 of Title 3 of the Wauconda Municipal Code entitled "Revocation of License" is hereby amended to add the following language, with double underline (insert) denoting inserted language and strikeout (~~delete~~) denoting deleted as follows:

"7-3-7: **REVOCATION OF LICENSE:** Any food dealer's license may be suspended, revoked, or not renewed by the Village President for repeated violation of the provisions of this Chapter, or for any violations of any other provisions of this Code relating to the conduct of the business, the condition of the premises, the articles sold or to the license required, or for any violation of Section 10-8-3-2 of this Code pertaining to Grease Traps. Revocation, suspension, or non-renewal proceedings shall be conducted by the Board of Trustees, ~~as provided for in Section 3-11 of this Code.~~"

**SECTION V:** Nothing in this Ordinance shall be construed to affect any suit or proceeding pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action arising, acquired or existing under any act or ordinance or portion thereof hereby repealed or amended by this ordinance; nor shall any just or legal right, claim, penalty or remedy of any character of the corporate authority existing on the effective date hereof be lost, impaired or affected by this Ordinance.

**SECTION VI:** All ordinances or parts of ordinances in conflict herewith are to the extent of such conflict, hereby repealed.

**SECTION VII:** If any provision, clause, sentence, paragraph, Section, or part of this ordinance or application thereof to any person, firm, corporation, public agency or circumstance, shall, for any reason, be adjudged by a court of competent jurisdiction to be unconstitutional or invalid, said judgment shall not affect, impair or invalidate the remainder of this ordinance and the application of such provision to other persons, firms, corporation, or circumstances, but shall be confined in its operation to the provision, clause, sentence, paragraph, Section, or part thereof directly involved in the controversy in which such judgment shall have been rendered and to the person, firm, corporation, or circumstances involved. It is hereby declared to be the legislative intent of the Corporate Authorities that this ordinance would have been adopted had such unconstitutional or invalid provision, clause, sentence, paragraph, Section, or part thereof not been included.

**SECTION VIII:** This ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as required by law.

Passed this 5th day of JULY, 2005.

	Ayes:	Nays:	Absent/ <del>Abstain</del> :
Paul C. Bird	<u>  x  </u>	<u>      </u>	<u>      </u>
Patrick Murphy	<u>      </u>	<u>      </u>	<u>  x  </u>
Cathy Scott	<u>  x  </u>	<u>      </u>	<u>      </u>
Mark F. Knigge	<u>  x  </u>	<u>      </u>	<u>      </u>
Lincoln Knight	<u>  x  </u>	<u>      </u>	<u>      </u>
Jean Mayo	<u>  x  </u>	<u>      </u>	<u>      </u>



APPROVED:

By: Salvatore J. Saccomanno Date: 7-5-05  
 SALVATORE J. SACCOMANNO, President

ATTEST:

By: Mary C. Taylor  
 MARY C. TAYLOR, Village Clerk

Presented and read, or reading having been waived, at a duly convened meeting of the Corporate Authorities on JULY 5, 2005.

I hereby certify that the above ordinance was published in pamphlet form on JULY 12, 2005, as provided by law.

By: Mary C. Taylor  
 MARY C. TAYLOR, Village Clerk